

## ABSTRACT

The present invention is directed to a sensor network that includes a number of sensor units and a base unit. The base station operates in a network discovery mode (in which network topology information is collected) in a data polling mode (in which sensed  
5 information is collected from selected sensory units). Each of the sensor units can include a number of features, including an anemometer, a rain gauge, a compass, a GPS receiver, a barometric pressure sensor, an air temperature sensor, a humidity sensor, a level, and a radiant temperature sensor.